# ATTACHMENT A AGRIUM KNO FACILITY CONTINUOUS RELEASE-EMERGENCY RESPONSE NOTIFICATION SYSTEM REPORT



Agrium Attachment To LOT - ENVOYIDO						
Kena '		- t	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	CID BILL	S NT. 1 44605	
SECTION	I: GENERA	L INFURMA	MITON	CK-ERNS	S Number: 44607	
Date of Init	ial Release:			Date of Ini	tial Call to NRC: 10/23/90	
Type of Rei	ort: Indicate be	low the type of repo	ort vou are sub	mitting.		
		First Anni	•	Written Notin	fication Written Notification	
Initial W	ritten Notification	Follow-up	· · ·	X of a Change		
		Report		Initial Notific		
		•			The state of the s	
					d herein are continuous and stable in	
				55.4(a)(2)(iii) and	I that all submitted information is	
accurate and c	urrent to the best o	n my knowledge.		M. L. Nugen	t, Plant Manager	
	. (				e and Position	
0.	13/79			ne The		
	Date Date			of or	ignature	
		· · · · · · · · · · · · · · · · · · ·		ν,	ignuture	
Part A. Faci	<u>lity or Vessel</u>	Information				
Name of Facil	ity or Vessel	Alaska Nitrog	en Products	LLC		
_		Kenai Plant			<b> </b>	
Person in Charge	N CD	in Channe M.	. N			
of Facility	Name of Person	•	L. Nugent		1.	
er Vessel	Position Plant Manager					
SET . PERA	Telephone No. (907) 776-8121 Alternate Telephone No. ( ) None					
Facility Address or	Street Mile 21 Spur Highway County Kenai Peninsula Borough					
Vessel						
Port of	City Kenai State AK Zip Code 99611					
Registration	district Number for Facility 002876200					
Dun and Brad	adstreet Number for Facility 092876390					
Facility/Vesse	Latitude	Deg N <u>60</u> Mi	in <u>40</u>	Sec 22	Vessel LORAN Coordinates	
Location		Deg W <u>151</u> Mi		Sec <u>36</u>	, osser 23 de la constantes	
Part B. Pop	ulation Infor	nation				
	Choose the rone	a that describes th	e nonulation	dencity within a a	ne-mile radius of your facility or vessel	
Population	(Indicate by placi	ng an "X" in the ap	propriate blan	k below.)	inc-line radius of your facility of vesser	
Density	<u>X</u> 0	- 50 persons 1 - 100 persons		101 - 500 persons	more than 1000 persons	
	<sup>3</sup>	1 - 100 persons		501 - 1000 persons		
Sensitive						
Populations		sitive Populations	-		Distance and direction from facility	
ınd	(e.g., schools,	hospitals, wetland	us, whallie p	reserves, etc.)		
Ecosystems		•		0	-	
Within one	NONE					
Mile Radius		<u> </u>			<u> </u>	

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SECTION II: SOURCE INFORMATION

**CR-ERNS** Number

44607

iece	essary.
Na	me of Source: Plant #5 Granulator Scrubbers, C-560A&B
1.	Indicate whether the release from this source is either:
	continuous without interruption X OR routine, anticipated, intermittent
2.	Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*
	Urea granule production  Urea granule production  Scrubber Primarily  Let Out Myb
	Urea granule production  Laker out Make Party  When Spanished
3.	Identify below how you established the pattern of release and calculated release estimates.
	X Past release dataKnowledge of the facility/vessel'sEngineering estimate operations and release history
	AP-42 test Best professional judgment Other (explain)

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

SOURCE

INFORMATION

(continued)

CR-ERNS Number

44607

(continued)	
Name of Source: Plant #5 Granul	lator Scrubbers, C-560A&B
for EACH source. Photocopy this page if new	following information. Please provide a SEPARATE sheet cessary.
affected by the release from this source. If your so	al medium (i.e., air, surface water, soil, or ground water) that is ource releases hazardous substances to more than one medium (e.g., a the release to EACH medium as a separate source and complete ACH medium affected.
O AIR X (stack X or area ) source is a stack or a ground-based area sou	If the medium affected is air, please also specify whether the rce.
If identified source is a stack, indicate stack	height: 100 feet o <del>r meters</del> ; <b>OR</b>
If identified source is an area source (e.g., emissions), indicate surface area: square.	waste pile, landfill, valves, tank vents, pump seals, fugitive re feet or square meters.
O SURFACE WATER (stream	, lake, or other)
If the release affects any surface water bod	y, give the name of the water body.
1	am order or average flow rate, in cubic feet per second.
stream order: or average flow rate: _	
	area of the lake in acres and the average depth in meters.
surface area of lake: acres and average	ge depth of lake: meters.
O SOIL OR GROUND WATER If the release is on or under ground, indicate the	distance to the closest water well.
	ptional Information
evaluating the risks associated with the continuake conservative assumptions about the a	he final rule; however, such information will assist EPA in uous release. If this information is not provided, EPA will ppropriate values. Please note that the units specified below are wever, be certain that the units are clearly identified.
For a stack release to air, provide the followinformation, if available:  Inside diameter 7.5 feet or me  Gas Exit Velocity 38 feet/secon  meters/secon	following information, if available:  Average Velocity feet/second  of Surface Water

<u>110</u>degrees Fahrenheit,

-Kelvin, or Celsius

Gas Temperature

								ľ
S	SECTION II: SOURCE	SOURCE INFORMATION	ATION			CR-ERNS Number	Number	
	(continued)	ned)				44607	)7	
2a.	Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	tity of Each ] E sheet for E	Hazardous S ACH source	Substance or Photocopy 1	Mixture Rel his page if n	eased From Each Sou ecessary.	<u>rce</u>	
Ž	Name of Source: Pl	Plant #5 Granulator Scrubbers, C-560A&B	tor Scrubbers, (	C-560A&B				
		•						Γ
	List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	released from the	he source identi ises of Hazardo	fied above and p us Substances – A	rovide the follo A Guide for Fac	wing information. (For an eilities and Vessels on Comp	xample, see Table 1 of liance.)	
<del>/</del> 1	Name of Hazardous Substance	CASRN#	Normal Range (in Ibs. or kg per day)* Upper Bound Lower Bo	ıl Range kg per day)* <u>Lower Bound</u>	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. er kg)*	Months of the Release	
	Ammonia	7664-41-7	1,100	089	365	260,000	AII	

Lis Re	ist each mixture released from the source identified Requirements for Continuous Releases of Hazardous	released from Continuous Re	the source id	lentified abov zardous Subs	e and provide the follo tances – A Guide for F	above and provide the following information. (For an example, see Table 2 of Reporting Substances – A Guide for Facilities and Vessels on Compliance.)	r an example, s compliance.)	see Table 2 of Repo	rting
Na An	Agne of Mixture	Name of Hazardous Substance Components	CASRN#	Weight <u>Percentage</u>	Normal Range of Components (in lbs. or kg per day)* Upper Lower Bound Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Lower Bound Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the <u>Release</u>
-									

N/A

<sup>\*</sup> Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.



	INFURMATION	44607
For vess	t A: Basis for Asserting the Release is Cont EACH source of a release of a hazardous su tel, provide the following information on a SI essary.	ubstance or mixture from your facility or
Na	me of Source: Plant #5 Atmospheric Absorber, D	D-512 / D-515
1.	Indicate whether the release from this source is either:  continuous without interruptionX OI	R routine, anticipated, intermittent
2.	If malfunction, describe the malfunction and explain wh	this source (e.g., batch process, filling of a storage tank). By the release from the malfunction should be considered  OSIZ Vents to 0.515 and k. A.R.  NOT 10512 My Creat
3.	Identify below how you established the pattern of release	e and calculated release estimates.
	X Past release data Knowledge of the operations and re	ne facility/vessel'sEngineering estimate elease history
	AP-42 testBest professional	l judgmentOther (explain)
		·

SECTION II:

SOURCE

INFORMATION

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

SOURCE

**INFORMATION** 

(continued)

**CR-ERNS Number** 

44607

'	continueu)		
Name of Source:	Plant #5 Atmospher	ic Absorber, D-5	12 / D-515
for EACH source. Photo AFFECTED MEDIUM. Ide affected by the release from	above, provide the following acopy this page if necessal entify the environmental methis source. If your source d ground water), treat the results above the source of the source of the source of the source.	ury. edium (i.e., air, sur releases hazardou elease to EACH m	n. Please provide a SEPARATE sheet  rface water, soil, or ground water) that is a substances to more than one medium (e.g., a nedium as a separate source and complete
<ul> <li>source is a stack or a g</li> <li>If identified source is</li> <li>If identified source is</li> </ul>	ground-based area source. a st <b>ack</b> , indicate stack heig	ht: 300	ves, tank vents, pump seals, fugitive
	(stream, lake	•	
stream order:  If the release affects a	or average flow rate:	cubic feet/secon	es and the average depth in meters.
O SOIL OR GROUND If the release is on or unde	WATERer ground, indicate the dista	unce to the closest	water well,
	Option	nal Information	
evaluating the risks asso	ociated with the continuous	release. If this in	such information will assist EPA in formation is not provided, EPA will ease note that the units specified below are

suggested units. You may use other units; however, be certain that the units are clearly identified.

-Kelvin, or Celsius

For a release to surface water, provide the following information, if available:

Average Velocity \_\_\_\_\_ feet/second of Surface Water

V.	SECTION II: SOI	SOURCE INFORMATION	TATION				CR-ERN	CR-ERNS Number	
<u>`</u>		(continued)					446	44607	
Pa Ple	Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	nantity of Each	Hazardous EACH sour	Substance or	Mixture Rethis page if	eleased En	rom Each Sou	urce	
Z	Name of Source:	Plant #5 Atmosp	heric Absorb	Plant #5 Atmospheric Absorber, D-512 / D-515					
	List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	ince released from	the source ides	ntified above and p	rovide the foll A Guide for F	lowing infor acilities and	mation. (For an Vessels on Com	ı example, see Tal pliance.)	le 1 of
	Name of Hazardous Substance	CASRN#	Norn (in lbs. or Upper Bound	Normal Range (in lbs. or kg per day)* ar Bound Lower Bound	Number of Releases (per year)	To Released (in	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release	,, vI
	Ammonia	7664-41-7	200	0.	365		0	AII	
······································	•								
	List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	from the source id ous Releases of Ha	entified above zardous Subst	and provide the fol ances – A Guide for	llowing inforn r Facilities an	nation. (Fo	r an example, see Compliance.)	e Table 2 of Repor	ting
	Name of Mixture  Name of Mixture  Components	of ous nce cents CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Lower Bound Bound	Normal Range of Mixture  (in lbs. or kg per day)* Upper Lower Bound Bound	Normal Range of Mixture Lbs. or kg per day)* Upper Lower Bound Bound	•	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the <u>Release</u>
	N/A								
							-		,
*	* Please be sure to include units where appropriate. Also, if the release is a radionuciide, units of curies (CI) are appropriate.	ss where appropriate.	Also, if the rele	ase is a radionuclide,	units of curies (	(CI) are appro	priate.		

	·		·	
<u>:</u>			<u> </u>	· .

SECTION II:	SOURCE
	INFORMATION

	sary.
Na	e of Source: Plant #5 Vent Scrubber, D-511
1.	indicate whether the release from this source is either:  continuous without interruptionXOR routine, anticipated, intermittent
2.	Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*  URLA  Amunical production  Fame of the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If the process is the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*  URLA  Amunical production  Fame of the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*  Fame of the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*  Fame of the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*  Fame of the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*
3,	Identify below how you established the pattern of release and calculated release estimates.
	X Past release data Knowledge of the facility/vessel's Engineering estimate operations and release history
	AP-42 testBest professional judgmentOther (explain)

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

SOURCE

**INFORMATION** 

(continued)

CR-ERNS Number

44607

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Τ.4	44		v	VJ.	$\sim$	ш	100	

Plant #5 Vent Scrubber, D-511

#### Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to EACH medium as a separate source and complete Section II, Parts A, B, and C, of this format for EACH medium affected.

O AIR X (stack X or area ) If the medium affected is source is a stack or a ground-based area source.	air, please also specify whether the
If identified source is a stack, indicate stack height:359	feet o <del>r meters</del> ; OR
<ul> <li>If identified source is an area source (e.g., waste pile, landfill, valves emissions), indicate surface area: square feet or square meters.</li> </ul>	s, tank vents, pump seals, fugitive
O SURFACE WATER (stream, lake, or other	)
• If the release affects any surface water body, give the name of the w	rater body.
If the release affects a stream, give the stream order or average flow:	rate in cubic feet ner second
stream order: or average flow rate: cubic feet/second;	•
If the release affects a lake, give the surface area of the lake in acres a	
surface area of lake: acres and average depth of lake: me	•
Surface area or raise accept the area of the services mi	eters.

#### **Optional Information**

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. If this information is not provided, EPA will make conservative assumptions about the appropriate values. Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter 2.8 feet or meters

  Gas Exit Velocity 70-1200 SCFM -feet/second or
  - meters/seconds

    Gas Temperature 180 220 degrees Fahrenheit
    - meters/seconds 20\_degrees Fahrenheit - <del>Kelvin, or Celsius</del>
- For a release to surface water, provide the following information, if available:

  Average Velocity \_\_\_\_\_\_ feet/second of Surface Water

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7	SECTION II: SOU	SOURCE INFORMATION	IATION			CK-EN	CK-EKINS INUMBER	
	(cont	(continued)				7	44607	
Par	Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source	antity of Each	Hazardous	Substance or	Mixture Rel	eased From Each	Source	
Ple	Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	TE sheet for I	ACH sour	ce. Photocopy t	his page if n	ecessary.		
Ž	Name of Source:	Plant #5 Vent Scrubber, D-51		1		,		
	List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	ice released from t r Continuous Rele	the source ider ases of Hazarc	ntified above and polous Substances – A	rovide the follo \ Guide for Fac	wing information. (For illities and Vessels on C	an example, see Table ompliance.)	1 of
ا ا	Name of Hazardous Substance	CASRN#	Norm (in Ibs. or Upper Bound	Normal Range (in lbs. or kg per day)* r Bound Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. er kg)*	ar Months of <u>the Release</u>	
	Ammonia	7664-41-7	1000	0	365	183,000	All	
	•	·				·		
	List each mixture released from the source identified above and provide the following information. (For an example, Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	rom the source ide us Releases of Haz	entified above	and provide the fol ances – A Guide for	llowing informa Facilities and	tion. (For an example, Vessels on Compliance)	(For an example, see Table 2 of Reporting is on Compliance.)	56
٨١	Name of Mixture  Name of Mixture  Components	of us ce CASRN#	Weight <u>Percentage</u>	Normal Range of Components (in lbs. or kg per day)* Upper Lower Bound Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Lower Bound Bound	nge of re per day)* Number ower of Releases	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
	N/A							-
								·····
*	* Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate	where appropriate.	Also, if the relea	tse is a radionuclide, t	units of curies (C	l) are appropriate.		



INFORM	IATION		44607	<u> </u>
Part A: Basis for Asserting For EACH source of a releasessel, provide the following necessary.	se of a hazardous information on a	substance or mixt	ure from your facili	ity or
Name of Source: Plant #5 E				
Indicate whether the release from continuous without interruption		OR routine, anticipat	ed, intermittent	
2. Identify the activity(ies) that is If malfunction, describe the malfunction and stable in quant	alfunction and explain	n this source (e.g., bate why the release from the	ch process, filling of a sto he malfunction should be	rage tank). considered
Ammonia and urea pro		moels 4H3		
	rheth E	COLOND COM 1-635 - HER WENT ERROR	e into d to keep In prossure co	Leol
3. Identify below how you estab			<del></del>	
Past release data	Knowledge of operations and	the facility/vessel's release history	X Engineering of	estimate
AP-42 test	Best profession	nal judgment	Other (explai	n)

SECTION II:

SOURCE

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

SOURCE

**INFORMATION** 

(continued)

**CR-ERNS** Number

44607

	(continued)		
Name of Source:	Plant #5 Exchanger, E-5	35	
For the source identifie	rmation on the Source ed above, provide the following stocopy this page if necessary.	g information. Please pro	vide a SEPARATE sheet
AFFECTED MEDIUM. I affected by the release fro wastepile releasing to air a	Identify the environmental medium this source. If your source released ground water), treat the released C, of this format for EACH medium	ases hazardous substances to e to <b>EACH</b> medium as a sepa	more than one medium (e.g., a
	X or area) If the mean a ground-based area source.	dium affected is air, please al	so specify whether the
If identified source	is a stack, indicate stack height:	300 feet or mete	ers; OR
•	is an area source (e.g., waste pile surface area: square feet or		pump seals, fugitive
O SURFACE WATE	R (stream, lake	_, or other	
If the release affects	s any surface water body, give th	e name of the water body.	
If the release affects	s a stream, give the stream order o	or average flow rate, in cubic	feet per second.
stream order:	or average flow rate: cub	oic feet/second; OR	
If the release affects	s a lake, give the surface area of the	he lake in acres and the avera	ge depth in meters.
surface area of lake	: acres and average depth of	of lake: meters.	
O SOIL OR GROUN If the release is on or us	D WATERnder ground, indicate the distance	to the closest water well.	·
	0.4. 17	- Co	
		nformation	:11 1-4 ED 4 1:
The following inform	ation is not required in the final ru	ile; nowever, such informatio	n will assist EPA in

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. If this information is not provided, EPA will make conservative assumptions about the appropriate values. Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

-Kelvin, or Celsius

•	For a stack release information, if avai	to air, provide the following lable:
	Inside diameter	
	Gas Exit Velocity	Unknown -feet/second or
	•	meters/seconds
	Gog Temperature	212 deorges Eabrenheit

•	For a release to surfac	e water, provide the
-	following information	, if available:
	Average Velocity	feet/second
	of Surface Water	

							The state of the s
$\overline{\mathbf{x}}$	SECTION II: SC	SOURCE INFORMATION	MATION			CR-ERN	CR-ERNS Number
	(c)	(continued)		:		44607	007
2	rt C. Identify and	Quantity of Each	Hazardous	Substance or	Mixture F	art C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source	ırce
le	lease provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	1RATE sheet for	EACH sourc	e. Photocopy	this page i	f necessary.	
Z	Name of Source:	Plant #5 Exchanger, E-53	nger, E-535				
	List each hazardous substance released from the source Reporting Requirements for Continuous Releases of Ha	stance released from s for Continuous Rel	the source identeases of Hazard	tified above and ous Substances –	provide the fo A Guide for	List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	example, see Table 1 of pliance.)
- Level	Name of Hazardous Substance	1CE CASRN#	Norms (in lbs. or l Upper Bound	Normal Range (in lbs. or kg per day)* oer Bound Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. er-kg)*	Months of <u>the Release</u>
	Ammonia	7664-41-7	240	0	365	1,160	All

above and provide the following information. (For an example, see Table 2 of Reporting Substances – A Guide for Facilities and Vessels on Compliance.)	Total Quantity of Mixture Released Months ases in Previous Year of the (in lbs. or kg) Release
above and provide the following information. (For an example, s Substances – A Guide for Facilities and Vessels on Compliance.)	Normal Range of  Mixture  (in lbs. or kg per day)* Number  Upper Lower of Releases  Bound Bound (per year)
ove and provide the follo bstances – A Guide for F	Normal Range of Components (in lbs. or kg per day)* Upper Lower Bound Bound
e source identified abases of Hazardous Su	Weight CASRN# Percentage
ist each mixture released from the source identified a Requirements for Continuous Releases of Hazardous S	Name of Hazardous Substance Components
List each mixtu Requirements fo	 Name of Mixture

N/A

<sup>\*</sup> Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.



SECTION II:	SOURCE
	INFORMATION

Na	me of Source: Plant #5 HP So	crubber (E-503)	
1.	Indicate whether the release from t	his source is either:	
	continuous without interruption	X OR routine, anticipat	ed, intermittent
2.		ts in the release from this source (e.g., bate nction and explain why the release from the and rate.*	
	Ammonia and urea produc	etion	
3.	Identify below how you establishe	d the pattern of release and calculated relea	ase estimates.
	Past release data	Knowledge of the facility/vessel's operations and release history	X Engineering estimate
	AP-42 test	Best professional judgment	Other (explain)

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular—to-be-considered stable in-quantity and rate.

SOURCE

INFORMATION

(continued)

**CR-ERNS Number** 

44607

N	ame	οf	Son	rce:
LNA	annc	UI	$\mathbf{S}\mathbf{U}\mathbf{u}$	II CC.

Plant #5 HP Scrubber (E-503)

#### Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to EACH medium as a separate source and complete Section II. Parts A, B, and C, of this format for EACH medium affected.

If identified source is a stack, indicate stack	k height: feet <del>or meters</del> ; <b>OR</b>
If identified source is an <b>area source</b> (e.g., emissions), indicate surface area:<0.00	waste pile, landfill, valves, tank vents, pump seals, fugitive  old square feet <del>or square meters</del> .
SURFACE WATER (stream	_, lake, or other)
If the release affects any surface water bo	dy, give the name of the water body.
If the release affects a stream, give the stre	eam order or average flow rate, in cubic feet per second.
If the release affects a stream, give the stream order: or average flow rate:	
stream order: or average flow rate:	
stream order: or average flow rate:	cubic feet/second; <b>OR</b> e area of the lake in acres and the average depth in meters.

#### **Optional Information**

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. If this information is not provided, EPA will make conservative assumptions about the appropriate values. Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

•		For a stack release to air, provide the following information, if available:				
	Inside diameter Gas Exit Velocity	feet <del>or meters</del> <del>-feet/second or</del>				
	Gas Temperature	meters/seconds degrees Fahrenheit,				
-		-Kelvin, or Celsius				

For a release to surface water, provide the following information, if available:

Average Velocity \_\_\_\_\_\_ feet/second of Surface Water

	STOTION II. SOIID	SOTTE THEORY ATTON	NOITA				CD EDN	CD_FDNG Number	
'J		nued)	NOTIE				44 44	44607	
	Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released Fr Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	ntity of Each TE sheet for E	Hazardous IACH sourc	is Substance or Mixture Released From Each Source rce. Photocopy this page if necessary.	Mixture Rel	eased Fre	om Each So	urce	
<b>F</b> -1	Name of Source: P	Plant #5 HP Scrubber, E-503	1bber, E-503	-					
									,
	List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	e released from t Continuous Rele	the source ider ases of Hazard	itified above and p lous Substances – A	rovide the follo A Guide for Fac	wing inforn ilities and V	nation. (For an essels on Com	n example, see Tal 1pliance.)	de 1 of
	Name of Hazardous Substance	CASRN#	Norm (in lbs. or Upper Bound	Normal Range lbs. or kg per day)* nund Lower Boun <u>d</u>	Number of Releases (per year)	Tota Released i	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release	. QI
	Ammonia	7664-41-7	20	20	365	~	7,300	All	
			* :	:					
	List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	om the source ide s Releases of Haz	entified above ardous Substa	and provide the fol nnces – A Guide for	lowing informa Facilities and	tion. (For a	an example, se	e Table 2 of Repor	ting
	Name of Hazardous Substance Name of Mixture Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Lower Bound Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Lower Bound Bound		Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the <u>Release</u>
	N/A								
74	Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.	here appropriate. 🗸	4lso, if the relea	se is a radionuclide, u	mits of curies (C	l) are appropi	iate.		

. · SECTION II: SOURCE

**INFORMATION** 

CR-ERNS Number

44607

Na	ame of Source: Plant 5 Cooling Tower, E-711		
1.	Indicate whether the release from this source is either	•	
	continuous without interruption	OR routine, anticipate	ed, intermittent X
2.	Identify the activity(ies) that results in the release fro If malfunction, describe the malfunction and explain continuous and stable in quantity and rate.*		
	Release occurs during Process Condensate		
	every 4 years during turnarounds. During the Plant 2 or the Plant 5 cooling tower.	outages, the process	condensate is directed to either
		outages, the process	condensate is directed to either
3.			
3.	Identify below how you established the pattern of rele Past release data Knowledge of		
3.	Identify below how you established the pattern of rele Past release data Knowledge of	ease and calculated release fithe facility/vessel's direlease history	se estimates.
3.	Identify below how you established the pattern of release data  Past release data  Operations and	ease and calculated release fithe facility/vessel's direlease history	se estimates.  X Engineering estimate

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

## SOURCE INFORMATION

(continued)

### CR-ERNS Number

44607

Name of Source: Plant 5 C	ooling Tower, E-711
for EACH source. Photocopy this page AFFECTED MEDIUM. Identify the environant affected by the release from this source. If you	the following information. Please provide a SEPARATE sheet if necessary.  In the following information of the following information of the following information. Please provide a SEPARATE sheet is in the following information. Please provide a SEPARATE sheet is in the following information. Please provide a SEPARATE sheet is information. Please provide a SEPARATE
O AIR X (stack X or area source is a stack or a ground-based are  If identified source is a stack, indicate	) If the medium affected is air, please also specify whether the rea source.  e stack height: feet or-meters; OR  (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive
SURFACE WATER (stream     If the release affects any surface water)	er body, give the name of the water body.
stream order: or average flow	surface area of the lake in acres and the average depth in meters.
O SOIL OR GROUND WATER  If the release is on or under ground, indic	
	Optional Information
evaluating the risks associated with the make conservative assumptions abou	ed in the final rule; however, such information will assist EPA in continuous release. If this information is not provided, EPA will the appropriate values. Please note that the units specified below are its; however, be certain that the units are clearly identified.  • For a release to surface water, provide the following information, if available:
Inside diameter 3 comes each Gas Exit Velocity 2.8 million of meter Gas Temperature 80 degrees	n 20 feet or meters Average Velocity feet/second n of Surface Water s/seconds Fahrenheit, n, or Celsius

SOURCE INFORMATION	
SECTION II:	

(continued)

CR-ERNS Number

44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source:

Plant 5 Cooling Tower, E-711

Whenever Stripper is maintenance. Does List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of out of service for the Release Months of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.) (occurs once every Released in Previous Year Total Quantity (in lbs. or kg)\* 4 years) 18,600 3 days every 4 of Releases (per year) Number years Lower Bound (in lbs. or kg per day)\* Normal Range 0 Upper Bound 6,200 7664-41-7 CASRN# Name of Hazardous Substance Ammonia

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

(per year) Number (in lbs. or kg per day)\* Normal Range of Bound Bound (in lbs. or kg per day)\* Normal Range of Bound Bound Components Upper Lower **Percentage** CASRN# Components Hazardous Substance Name of Name of Mixture

Months

Total Quantity of Mixture Released

in Previous Year

not correspond to a

particular month.

of the Release

NA

<sup>\*</sup> Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.



SECTION II:	SOURCE
	INFORMATION

44607

For 1 vesse	Tart A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.  For EACH source of a release of a hazardous substance or mixture from your facility or essel, provide the following information on a SEPARATE sheet. Photocopy this page if ecessary.			
Nan	ne of Source: Plants 4 & 5, Vent Flare/Stack, B-502			
	Indicate whether the release from this source is either:  continuous without interruption X OR routine, anticipated, intermittent			
	Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*			
	Ammonia and urea production  Not $100070$ edition to $45070$			
3.	Identify below how you established the pattern of release and calculated release estimates.			
÷	X Past release data Knowledge of the facility/vessel's X Engineering estimate operations and release history			
	AP-42 test Best professional judgment Other (explain)			

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

SOURCE

INFORMATION

(continued)

**CR-ERNS Number** 

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Name of Source: Plants 4 & 5, Vent Flare/Stack, B-502
Part B: Specific Information on the Source  For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.
AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to EACH medium as a separate source and complete Section II, Parts A, B, and C, of this format for EACH medium affected.
O AIR X (stack X or area ) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.
If identified source is a stack, indicate stack height: 246 feet or meters; OR
If identified source is an area source (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: square feet or square meters.
O SURFACE WATER (stream, lake, or other)
If the release affects any surface water body, give the name of the water body.
• If the release affects a stream, give the stream order or average flow rate, in cubic feet per second.
stream order: or average flow rate: cubic feet/second; OR
If the release affects a lake, give the surface area of the lake in acres and the average depth in meters.
surface area of lake: acres and average depth of lake: meters.
O SOIL OR GROUND WATER If the release is on or under ground, indicate the distance to the closest water well.
Optional Information
The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. If this information is not provided, EPA will make consequative assumptions about the appropriate values. Please note that the units specified below are

suggested units. You may use other units; however, be certain that the units are clearly identified.

For a stack release to air, provide the following

• For a release to surface water, provide

information, if available: Inside diameter 2

2 feet or-meters

Gas Exit Velocity \_

63 feet/second-or

-

meters/seconds

Gas Temperature

250 degrees Fahrenheit,

-Kelvin, or Celsius

For a release to surface water, provide the following information, if available:

Average Velocity \_\_\_\_\_feet/second

of Surface Water

S	SECTION II: SOU	SOURCE INFORMATION	MATION			CR-ERNS Number	Number	ГТ
	(cont	(continued)	•			44607	7	
Pa Pu	Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released Fr. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	lantity of Each 4TE sheet for	Hazardous EACH sourc	Substance or e. Photocopy	Mixture Rothis page if	Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	<u>50</u>	ì
	Name of Source:	Plants 4 & 5, Vent Flare/Stack, B-502	ent Flare/Stack,	B-502				
								Г
	List each hazardous substar	nce released from r Continuous Rek	the source iden eases of Hazard	tified above and ous Substances –	provide the fol - A Guide for F	List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	ample, see Table 1 of ance.)	
	Name of Hazardous Substance	CASRN#	Norm (in lbs. or Upper Bound	Normal Range (in lbs. or kg per day)* oer Bound Lower Bound	Number of Releases (per <u>vear</u> )	Total Quantity Released in Previous Year (in lbs. or ke)*	Months of the Release	
	Ammonia	7664-41-7	5400	0	365	31,000 *	All	

above and provide the following information. (For an example, see Table 2 of Reporting Substances – A Guide for Facilities and Vessels on Compliance.)	Number Mixture Released Months of Releases in Previous Year of the (per year) (in lbs. or kg) Release
above and provide the following information. (For an example, solubstances – A Guide for Facilities and Vessels on Compliance.)	Normal Range of  Mixture (in lbs. or kg per day)* N Upper Lower of F  Bound Bound (pe
ve and provide the follo stances - A Guide for F	Normal Range of Components (in Ibs. or kg per day)* Upper Lower Bound Bound
entified abov zardous Sub	Weight Percentage
the source id	CASRN#
e released from r c Continuous Re	Name of Hazardous Substance Components
List each mixture released from the source identified Requirements for Continuous Releases of Hazardous	Name of Mixture
***************************************	

N/A

Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate. Approximately 5 days per year the flare is down for maintenance, in which case 5400 lb/day is being released. All other days an average of 12 lb is being released.



SECTION II: SOURCE INFORMATION

Name of Source: Plants 4 & 5, Emergency Flare, B-501

CR-ERNS Number

44607

Indicate whether the release from this source is either:
continuous without interruption X OR routine, anticipated, intermittent
Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*
The emergency flare is designed to burn large quantities of ammonia during process upsets. During an upset, 99.5% of the ammonia passing through the flare is burned, and only 0.5% escapes to the atmosphere without being burned. The emergency flare is not capable of combusting the relatively small quantities of ammonia that pass through it during periods of normal operation. Daily emissions that are released to the atmosphere through the flare include fugitive emissions from the process through the flare's seal leg, rupture valve, and bypass valve.  But Pin Value allows & Some as the second of the
Identify below how you established the pattern of release and calculated release estimates.
X Past release data Knowledge of the facility/vessel's X Engineering estimate operations and release history
AP-42 test Best professional judgment Other (explain)

<sup>\*</sup> Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

SOURCE

**INFORMATION** 

CR-ERNS Number

44607

((	onunued)
Name of Source:	Plants 4 & 5, Emergency Flare, B-501
	ation on the Source above, provide the following information. Please provide a SEPARATE sheet copy this page if necessary.
affected by the release from wastepile releasing to air and	ntify the environmental medium (i.e., air, surface water, soil, or ground water) that is this source. If your source releases hazardous substances to more than one medium (e.g., a ground water), treat the release to EACH medium as a separate source and complete of this format for EACH medium affected.
	X or area) If the medium affected is air, please also specify whether the round-based area source.
If identified source is	stack, indicate stack height: 246 feet or meters; OR
If identified source is emissions), indicate su	an area source (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive urface area: square feet or square meters.
	(stream, lake, or other) ny surface water body, give the name of the water body.
	stream, give the stream order or average flow rate, in cubic feet per second.  or average flow rate: cubic feet/second; OR
	lake, give the surface area of the lake in acres and the average depth in meters.
	acres and average depth of lake: meters.
O SOIL OR GROUND If the release is on or unde	WATER r ground, indicate the distance to the closest water well.
	Optional Information
evaluating the risks asso	on is not required in the final rule; however, such information will assist EPA in ciated with the continuous release. If this information is not provided, EPA will

make conservative assumptions about the appropriate values. Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

•	For a stack release	to air, pro	vide the following
	information, if avai	lable:	
	Inside diameter	5.5	_ feet <del>or meters</del>
	Gas Exit Velocity	122	feet/second-or
			1 1

meters/seconds

Gas Temperature \_\_300\_degrees Fahrenheit, -Kelvin, or Celsius For a release to surface water, provide the following information, if available: Average Velocity \_\_\_\_\_ feet/second of Surface Water

	THOLLING II.	SOURCE INFORMATION	MATTON			CR-EL	CR-ERNS Number	
2		(continued)				7	44607	
Pa Pu	rt C. Identity s ease provide a S	Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.	th Hazardou EACH sour	s Substance or ]	Mixture Re	leased From Each	Source	
	Name of Source:		Plants 4 & 5, Emergency Flare, B-501	e, B-501				
	List each hazardou Reporting Require	List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	n the source ide leases of Hazar	intified above and pi	rovide the follo	wing information. (For cilities and Vessels on C	r an example, see Tabl	le 1 of
	Name of Hazardous Substance	ubstance CASRN#	Norr (in lbs. e <u>Upper Bound</u>	Normal Range (in lbs. <del>or kg per day</del> )* <u>r Bound Lower Bound</u>	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. er kg)*	ear Months of the Release	
	Ammonia	7664-41-7	0092	0	365	231,000**	AII	
	·							
	List each mixture 1 Requirements for (	List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)	identified above	and provide the fol	llowing informare Facilities and	ation. (For an example, Vessels on Compliance.	, see Table 2 of Report	ing
	Name of Mixture	Name of Hazardous Substance Components CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Lower Bound Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Lower Bound Bound	ange of ure . per day)* Number .ower of Releases	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the <u>Release</u>
	N/A							
	·							
* *	•	Please be sure to include units where appropriate. Al	riate. Also, if the	Also, if the release is a radionuclide, units of curies (CI) are appropriate.	de, units of curie.	s (CI) are appropriate.		

The average quantity released in 1999 was 0.316 TPD.

